

REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 1-21 are presently active in this case. No new matter is added.

The outstanding Office Action rejected Claims 1-5, 9, 10 under 35 U.S.C. §102(e) as being anticipated by Rouphael et al. (U.S. Patent No. 6,917,642 B1 hereinafter, Rouphael).¹ Claims 13-21 stand allowed and Claims 6-8, 11, 12 are indicated as reciting allowable subject matter.

Applicants acknowledge with appreciation the indication of allowable subject matter. However, since Applicants consider that Claim 1, from which Claims 2-12 depend, defines patentable subject matter, Claims 6-8, 11, 12 are maintained in dependent form.

Information Disclosure Statement

Applicants respectfully request that the reference noted at line AW in the Information Disclosure Statement filed April 11, 2005 be acknowledged as having been considered in the next Office Action.

Rejection Under 35 U.S.C. §102

In response to the rejection of Claim 1 under 35 U.S.C. §102(e), Applicants respectfully traverse the rejection.

¹ A typographical error indicated the applied reference as Rouphet et al (U.S. Patent No. 917,642 B1) in the Official Action.

Applicants' claimed advancement as recited in Claim 1 relates to a receiving process method of a receiving apparatus used in a mobile communication system in which a sending apparatus sends a plurality of code channels as code channel groups to which spreading codes are assigned to a receiving apparatus, including:

when spreading codes used for said code channel groups are orthogonal code sequences,
generating received spreading signal sequences of said code channel groups *according to the number of received paths*; and
removing received spreading signal sequences of a *received path* of own code channel group of said receiving apparatus which should be removed from received signals. (emphasis added)

Rouphael describes a method for encoding/decoding data channels in a system having data channel interference cancellation where the data rate of a system for a given user is increased by using a non-orthogonal pilot signal for channelization.² More specifically, Rouphael provides transmission of data over CDMA radio channels from a base station to a receiving station, and vice versa,³ where a non-orthogonal pilot signal is removed from the transmitted data.⁴

Claim 1 is distinguishable over Rouphael as this reference fails to disclose *generating received spreading signal sequences* of code channel groups *according to a number of received paths*. The Official Action cites Fig. 1, communication (160) of Rouphael as disclosing generating received spreading signal sequences of said code channel groups according to a number of received paths. However, communication (160) is a transmission of data over CDMA radio channels.⁵ Transmission of data over CDMA radio channels is not

² See Rouphael column 5, lines 17-21.

³ See Rouphael column 7, lines 16-17.

⁴ See Rouphael column 7, lines 46-50.

⁵ See Rouphael, column 7, lines 16-17.

generating received spreading signals as recited in Claim 1 because Figure 1 of Rouphael neither discloses nor suggests that a spreading signal received at station (101), such as a multipath interference replica, is generated at the station.⁶

Furthermore, the number of CDMA radio channels in Rouphael are allocated or de-allocated as the system requires, such as correlating the number of channels to the number of portable computers in the system.⁷ However, the number of CDMA radio channels are not allocated or de-allocated *according to the number of paths* any particular CDMA radio channel may receive in a multipath environment. Therefore, allocation and de-allocation of CDMA radio channels is not a generation of received spreading signals *according to the number of received paths* as recited in Applicants' claim 1.

Additionally, the Official Action cites column 1, line 67 of Rouphael as disclosing removing received spreading signal sequences of a *received path* of own code channel group of said receiving apparatus which should be removed from received signals. However, column 1, lines 66-67 of Rouphael merely discloses that "[e]ach of ... [the] reverse-link channels is spread orthogonally by a unique long PN sequence." While the cited portion of Rouphael discusses spreading a signal with a pseudonoise sequence, there is no disclosure of removing received spreading signal sequences of a received path. Rouphael describes mere removal of a non-orthogonal pilot signal as interference.⁸ Removing a non-orthogonal pilot signal is different from removing received spreading signal sequences of a *received path*

⁶ See Applicants' specification page 4, lines 25-30 and page 7, lines 9-13

⁷ See Rouphael column 6, lines 55-58 and Fig.1 disclosing the number of radio channels corresponding to the number of portable computers in the system.

⁸ See Rouphael column 7, lines 47-50.

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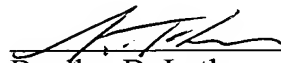
because Rouphael neither discloses or suggests that the non-orthogonal pilot signal is a *received path* such as a multipath interference replica.

Accordingly, Applicants respectfully request that the rejection of Claims 1-5, 9, and 10 under 35 U.S.C. §102(e) be withdrawn.

Consequently, in view of the present response, no further issues are believed to be outstanding in the present application, and the present application is believed to be in condition for formal Allowance. A Notice of Allowance for Claims 1-21 is earnestly solicited.

Respectfully submitted,

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